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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO.  |
|---|-------------|----------------------|-------------------------------|-------------------|
| 09/819,866  | 03/29/2001  | Toshihiro Suzuki     | 205301US2                     | 3738              |
| 22850   | 7590        | 03/10/2004           | EXAMINER<br>DESIRE, GREGORY M |                   |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      | ART UNIT<br>2625              | PAPER NUMBER<br>4 |

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/819,866

Applicant(s)

SUZUKI, TOSHIHIRO

Examiner

Gregory M. Desire

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 13 and 18-19 is/are rejected.
- 7) ☒ Claim(s) 6-12 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 13 and 18-19 rejected under 35 U.S.C. 102(e) as being anticipated by Nishiwaki (6,198,846).

Regarding claims 1, 13, 18 and 19 Nishiwaki discloses,

Extracting the cross section sequence graph from a character string image (note fig. 1 block 11 in connection with col. 4 lines 28-29, examiner interprets extracting a character row as extracting the cross section sequence graph from a character string);

Analyzing a singular region of the cross section sequence graph and generating a virtual boundary point sequence in the singular region based on an analyzed result (note col. 4 lines 30-32 and 37-39, the examiner interprets analyzing of singular region of the cross-section and generating a virtual boundary point in the singular region as merely focusing on a specific part of a region, separating of position candidates and determining the shapes at the detected row separating position candidate);

Generating character candidates by combining structural elements of the cross section sequence graph and recognizing one character by supplying the virtual

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boundary point sequence with respect to the generated character candidate if necessary (note fig. 4 block 32 and col. 4 line 33-35, generating character candidates are provided in character candidate separation, wherein from the extracted row one character is recognized; and

Recognizing a character string based on an adjacency relationship of the character candidates, which are recognized as one character in, said step c (note col. 4 lines 48-50, recognizing of characters in the recognition means is based on generation character candidates).

Regarding claim 2 Nishiwaki discloses,

The singular region in which the virtual boundary point sequence is generated includes a region where character string is closely adjacent or in contact (note fig. 10-15 and col. 6 lines 1-9, separating position candidates shows character closely in contact).

Regarding claim 3 Nishiwaki discloses,

Determining a generating position of the virtual boundary point sequence based on the singular region and a connecting sequence and positions of cross sequences connecting to the singular region (note col. 6 lines 42-50, cites determining a position of the determines separation shape).

Regarding claim 4 Nishiwaki discloses,

Refers to a direction of the character string when generated the virtual boundary point sequence and generating no virtual boundary point sequence between cross section sequences not corresponding to the direction of the character string (note col. 5 lines 3-35, refers to direction of character string).

Regarding claim 5,

Generates the virtual boundary point sequence using a predetermined curve generating method (note col. 4 lines 37-39).

***Allowable Subject Matter***

3. Claims 6-12 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 6,

The prior art fails to divide the structural elements into first and second layers and managing the first and second layers by Tags. These features in combination with other limitations are not taught in the prior art. Claims 7-12 are dependent on claim 6. Therefore also objected.

Regarding claim 14,

The prior art fails to convert character candidates made up of the cross section sequence and the singular region into boundary point sequences by supplying the virtual boundary point sequence. These features in combination with other limitations are not taught in the prior art. Claims 15-17 are dependent on claim 14. Therefore are objected.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703) 308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire

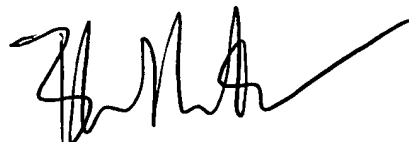
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G.D.  
March 5, 2004

A handwritten signature in black ink, appearing to read 'B. Mehta', with a long horizontal stroke extending to the right.

**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**